Mitigated Negative Declaration for the Pipeline 4 Relining Project at Lake Murray

Next Steps

September 24, 2015  
30-day public comment period ends

Sept 24 – Oct 22, 2015  
Staff evaluates/responds to public comments

October 22, 2015  
Expected date for Board to consider Final MND approval
Camp Pendleton Seawater Desalination Project – Intake Testing Program

Water Planning Committee
September 24, 2015
Bob Yamada, Director of Water Resources
Overview of potential seawater desalination project at Camp Pendleton

Memorandum of Understanding with MCB Camp Pendleton (Action)

Intake Testing Program Professional Services Contract (Action)
Background

- Unique, large coastal location at top of Water Authority’s Aqueduct system
- Phased implementation
  - 56,000 to 168,000 AF (50–150 mgd)
- Completed feasibility and technical studies support project viability
- Identified in the 2013 Master Plan Update as a new supply option to meet long-term supply needs (post–2030)
  - Adaptive Management approach
  - Future project development decisions will consider water supply conditions and uncertainties
Camp Pendleton Desal Activities – Timeline (Historical/Current)

- **2009**: Initial Feasibility Work Completed
- **2010**: Detailed Feasibility Studies Completed
- **March 2013**: Identified as Long-Term Water Supply Option
- **2014**: $1.4M in Grants Awarded for Intake Test Program
- **March 2015**: Board Considers Intake Testing Program Contract Award
- **2014**: Board Approves Master Plan Update
- **March 2015**: Board Approves Intake Testing Program
- **2010**: Execute MOU for Technical Studies
- **2014**: Board Funds Studies & Adds to CIP
## Camp Pendleton Desalination
### Adaptive Management Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
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</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

- **2015**: Determine status of local agency potable reuse and Rosarito Desal permitting.
- **2020**: Consider initiating Camp Pendleton Desal environmental permitting.
- **2025**: Consider initiating permitting for first phase 50 MGD Camp Pendleton Desal.*
- **2035**: *Assumes no litigation delays

**Consider Potential Implementation***

---

* Assumes no litigation delays
Consider Potential Implementation*
Technical Studies – Geologic / Hydrogeologic Investigations

- Conducted Geophysical Survey using seismic reflection
- Drilled exploratory boreholes
- Built Groundwater Model
- Constructed test well and pump tested offshore aquifer

Key Findings:
- Large sub-seafloor ancient river channel
  - Potential favorable geology to support large subsurface intake system
Technical Studies – Marine Environment Investigations

- Physical Oceanography
  - Ocean currents
  - Wave pressure

- Water Quality Monitoring and Sampling
  - Temperature
  - Salinity
  - Boron / Bromide

- Marine Biology Monitoring and Sampling
  - Ichthyoplankton (larvae)
  - Phytoplankton (algae)
  - Demersal Species (fish)
  - Infauna Invertebrate (sea-floor habitat)

Key Findings:
- Typical marine environment – nothing unusual
- No fatal flaws to siting open ocean intake and discharge
Camp Pendleton Desalination
CIP Budget History (To Date)

Initial CIP Budget (approved June 2009): $5.72 million
• Less expended funds for detailed technical studies and staff costs: $4.10 million

Remaining Budget:
• Plus grant funding: $1.40 million
• Plus CIP Budget Reallocation (Board approved March 2015): $1.25 million

Available Budget for Intake Testing Program professional services and staff costs: $4.27 million
Camp Pendleton Desalination – Current Status

- Discussions continuing with MCB Camp Pendleton on long-term site preservation agreement

- Intake Testing Program approved by Board in March 2015
  - Approved program
  - Accepted grant funds
  - Authorized budget transfer

- MOU with MCB Camp Pendleton and Professional Services Contract require Board action today
Action Agenda:

- Memorandum of Understanding with Marine Corps Base Camp Pendleton
- Professional Services Contract for Intake Testing Program

Water Planning Committee
September 24, 2015
Jeremy Crutchfield, Senior Engineer
Intake Testing Program Site

- Site located within “Del Mar Beach” of Camp Pendleton
  - Recreational use area
- 10,000 square foot approximate footprint
- Continuous operation for one year (attended 40 hours/week)
MOU Responsibilities

**MCB Camp Pendleton**
- Ensure activities do not conflict or interfere with Base activities
- NEPA Lead Agency for Test Program Permitting
- Issue License for Nonfederal Use of Real Estate

**Water Authority**
- Ensure activities do not conflict or interfere with Base activities
- CEQA Lead Agency for Test Program Permitting
- Permit and Utility Coordination
- Personnel and Activity Notifications
Covered Activities
Profession Service Contract for Intake Testing Program
Intake Testing Program Overview

- Intake & Discharge Pipelines
- Pretreatment Pilot Plant
Selection of Michael Baker Int’l
Key Attributes:

- California desalination project experience
- Familiarity with MCB Camp Pendleton
- Project Manager for previous successful planning studies
- Permitting track record
- Innovative project concept
- Emphasis on Ocean Plan Amendment requirements
Staff Recommendations:

- Authorize the General Manager to execute a Memorandum of Understanding between the San Diego County Water Authority and Marine Corps Base Camp Pendleton to conduct the Intake Testing Program

- Authorize the General Manager to award a professional services contract to Michael Baker International, Inc. in an amount not-to-exceed $4,050,000, to perform the design, permitting, construction, operation, testing and reporting required for the Intake Testing Program associated with a potential Camp Pendleton Seawater Desalination Project.
Comprehensive Environmental Mitigation Program

- Introduction
- Why a Mitigation Program
- Current Status
  - Permits
  - Lands
- Looking Forward
Mitigation Program

Introduction

- Established by Board in September 1992
- Covers projects in the Capital Improvement Program and O&M
- Distinguishes between Emergency Storage Project and all other projects
- Administered by the Water Resources Department
Why a Mitigation Program?

- Resolve conflict between 1989 Water Distribution Plan (12 projects) & 1993 California Gnatcatcher listing
- Proactively prevent future similar conflicts with CIP and O&M activities
Mitigation Program Functions

Permits

- Administer 55-year federal and state Endangered Species Act permits
- Administer 50-year federal Clean Water Act permits

Lands

- Acquire mitigation land and credits
  - Develop mitigation agreements
  - Manage mitigation lands and credits
Endangered Species Act Compliance

- Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) effective December 2011
- 55-Year Endangered Species Act permits from state and federal wildlife agencies
  - Covers 63 listed or at risk for listing plant and animal species and 65 habitat types
## Endangered Species Act Compliance

### Permitting Evolution

<table>
<thead>
<tr>
<th>Year</th>
<th>1993</th>
<th>1997</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12-proj.</td>
<td>18-proj.</td>
<td>Unlimited projects (subject to permit conditions)</td>
</tr>
<tr>
<td></td>
<td>1-species</td>
<td>13-species</td>
<td>19-species; 44 at-risk species</td>
</tr>
</tbody>
</table>

2066
Clean Water Act Compliance

- 50-Year federal Section 404 permit from U.S. Army Corps of Engineers
  - Covers 25 routine construction and maintenance activities
  - Provides streamlined approval process
Mitigation Lands and Credits

- Acquire mitigation lands and credits to address:
  - Past: Project-specific mitigation for CIP and O&M activities
    - Emergency Storage Project
  - Current/Future: Comprehensive NCCP/HCP for CIP and O&M needs
Mitigation Lands and Credits
Manage Mitigation Credits

Credits
- San Miguel (577 credits)
  - coastal sage scrub & chaparral
  - Manager: US Fish and Wildlife Service
- Crestridge (22 credits)
  - coastal sage scrub & chaparral
  - Manager: CA Department of Fish and Wildlife
- Manchester (3 acres)
  - riparian scrub

Lands (Potential Credits)
- San Luis Rey (46 acres)
  - wetlands
  - riparian scrub
  - Location: County of San Diego
- Sanrex (33 acres)
  - coastal sage scrub
  - Location: City of Poway
Looking Forward

- Manage existing regulatory commitments
- Develop wetland Mitigation Banking Agreements
- Develop wetland mitigation sites
- Establish land management funding options
- Add missing habitat types and/or species by:
  - Acquiring new mitigation lands or credits
  - Enhancing existing mitigation lands to increase habitat quality and/or covered species numbers or diversity
  - Partnering with others to achieve mitigation goals
Update on Supply Conditions and Drought Response Activities

Source: NCAR Visualization Lab

Water Planning Committee
September 24, 2015 Meeting

Presentation by:
Alexi Schnell, Water Resources Specialist
Dana Friehauf, Water Resources Manager
October 2015 - El Niño Advisory

- Issued when El Niño conditions are observed and expected to continue
- +95% chance El Niño will continue through winter and gradually weaken through spring 2016

September 2014 - El Niño Watch

- Issued when conditions are favorable for development of El Niño
- Chance of El Niño had decreased to 60-65% for fall and winter
The “Blob”

What is the Blob?
- Large mass of warm water off the coast of the Pacific Northwest
  - Emerged in late 2013
- No historical experience with the Blob

The Blob vs. El Niño
- Both are phenomenon associated with warm water in the Pacific that can separately impact weather
- Other than speculation, climatologists have no way to know how weather systems will be influenced by the potential interaction of the Blob and El Niño conditions
Tropical Weather Indicators of El Niño Continue to Develop

Source: Mike Dettinger, USGS/SIO
National Weather Service Precipitation Outlook

October - December

November - January

December - February

A = Above Average  B = Below Average  EC = Equal Chances

Made September 17, 2015
National Weather Service Temperature Outlook

October - December

November - January

December - February

A = Above Average  B = Below Average  EC = Equal Chances

Made September 17, 2015
Source: SWRCB Conservation Reporting Data
Total Potable M&I Water Use
State Emergency Regulation Reporting Months

Cumulative June - August 2015 is **27%** lower than 2013

Source: Member Agency monthly water use reporting to the Water Authority
Update on SWRCB Emergency Regulations

• As part of adoption of regulations, State Water Board agreed to form workgroup to address unresolved issues
  • e.g. investments in drought-resilient supplies

• Stakeholder workgroup met August 26th
  • Meeting focused on expediting adoption of long-term regulations

• September 18th stakeholder letter
  • Question authority of SWRCB to extend emergency regulations on permanent basis
  • Long-term water management objectives must encompass both conservation and supply development
  • Focus on unresolved issues associated with emergency regulations

• Next workgroup meeting October 26, 2015
Fiscal Year 2016
Supply Allocation Monitoring

Water Planning Committee
September 24, 2015

Presentation by:
Tim Bombardier
Principal Water Resources Specialist
## Drought Response Monthly Tracking

<table>
<thead>
<tr>
<th>Tracking Metric</th>
<th>Data Source</th>
<th>Data Availability</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Potable M&amp;I Water Use (excludes TSAWR)</td>
<td>Member agency water use reports</td>
<td>Middle of following month</td>
<td>Compare to CY 2013 used as proxy for SWRCB Regulation performance</td>
</tr>
<tr>
<td>Potable Urban Water Production (excludes commercial agriculture)</td>
<td>SWRCB Urban Supplier Monitoring Report</td>
<td>End of following month</td>
<td>Compare to CY 2013 to determine SWRCB Regulation compliance</td>
</tr>
<tr>
<td>M&amp;I and TSAWR Water Sales (excludes local supplies)</td>
<td>Water sales invoices</td>
<td>Middle of following month</td>
<td>Compare to monthly allocation tracking to ensure not exceeding annual MWD allocation</td>
</tr>
</tbody>
</table>
Monthly M&I Tracking Targets and Estimated Monthly M&I Deliveries (AF)
FY 2016 MWD Allocation and Water Authority Delivery of MWD Supplies Through August 2015 (AF)

- FY 2016 MWD Allocation: 308,610
- Cumulative MWD Deliveries: 66,239
San Vicente Pumped Storage Study

Engineering & Operations Committee Meeting
September 24, 2015
Hydropower Subcommittee
September 4, 2015 Meeting

- Battery and Floating Solar Projects
- San Vicente Pumped Storage Phase 2 Work Update
  - FERC Preliminary Application Document/Notice of Intent
  - Reservoir Modeling
  - Meeting with Investor Owned Utilities
  - Owners’ Advisor Team Procurement
  - Key Milestones
Agenda

- Project Update
- Recommended Action
Project Description

- Water Authority and City of San Diego
  - Co-permittees with FERC
- Up to 500 MW capacity pumped storage project
  - Up to 8 hours of storage and 4,000 MWh of energy
- Existing Infrastructure
  - San Vicente Reservoir and SDG&E Sunrise Powerlink
- Proposed Infrastructure
  - Upper reservoir, pumphouse, pipeline/tunnel, and transmission lines
Project Work Status

- Initial Economic and Financial Feasibility Study
- FERC preliminary permit received
- Reservoir modeling complete
- FERC PAD/NOI submitted
- Selection of Owners’ Advisor Team
- Additional reservoir modeling performed as required
- Owners’ Advisor Team work
  - Go/No-Go project recommendation
  - Business model(s) recommendation
Federal Energy Regulatory Commission

- July 2015 – filed FERC Preliminary Application Document (PAD)/Notice of Intent (NOI)
  - Water Authority and City – Co-applicants
  - Intent to submit a licensing application in the future
  - Outlines plan for completing required studies
  - Proposes to use traditional versus integrated licensing track
- End of September, 2015 – FERC decision on traditional licensing track
- Mid-November 2015 - Tribe/resource agency and public meetings
Pure Water San Diego

- Initial modeling complete to determine compatibility between Pure Water and SV Pumped Storage projects
- August 2015 - Draft report complete
  - No fatal flaws
- October 2015 - Meeting with Independent Advisor Panel (IAP)
- Continued modeling as the Pure Water project develops.
**Key Milestones/Next Steps**

- **July 2015**: PAD/NOI Filed with FERC
- **Aug. 2015**: Water Authority and City Complete Owners’ Advisor Team selection process
- **Sept. 2015**: Board considers award of an Owners’ Advisor Team Professional services contract
- **Late 2016**: Board and Council consider (1) Go/No-Go decision; (2) recommended project business model; and (3) next steps
- **Regular updates to HPSC and E&O Committee**
  - Go to Phase 2
  - OR
  - Stop
  - OR
  - Go to Phase 3
  - OR
  - Stop
Agenda

- Project Update
- Recommended Action
Owners Advisor Team Selection Process

- Request for Proposal – Water Authority and City Panel
- Five proposers – Great response – All within budget
  - The Louis Berger Group, Inc.
  - Navigant Consulting, Inc.
  - E3 Consulting
  - Schulte Associates, LLC
  - Arup Advisory, Inc.
- Shortlisted to three
- Conducted first and second oral interviews
Navigant Consulting, Inc.

Experienced multidisciplinary team of advisors
- Financial
- Power Market
- Legal
- Technical

$1,488,416

Scope of Work:
- Advise Water Authority and City (Owners) with one voice
- Verify project value and marketability
- Recommend range of project business models (partnership with developer, investor owned utility, both, other)
Owners’ Advisor Team Deliverables

Preliminary Business Model Deliverable

- Economic Analysis Deliverable
- Marketability Study Deliverable
- Risk/Reward Analysis Deliverable

Business Model Deliverable

Note: Will expand upon previous work
Process for Business Model Selection

- Navigant would perform analysis

- Staff would periodically update and gain input from the Hydropower Subcommittee throughout the process

- Staff would schedule E&O Committee workshops to review the range of potential business models

- Staff would return to the Board in late 2016 to present for consideration a go/no-go decision on project and, potentially, a recommended business model(s)

  - Note: Neither Water Authority or City staff would recommend being the builder or operator of the Pumped Storage Project
Authorize the General Manager to award a professional services contract to Navigant Consulting, Inc., for $1,488,416, to provide professional services for Phase 2 work, including serving as the Owners’ Advisor to the Water Authority and City and analyzing and recommending a business model(s) for the San Vicente Pumped Storage Study.
Hydropower Subcommittee Recommendation

- Authorize the General Manager to award a professional services contract to Navigant Consulting, Inc., for $1,488,416, to provide professional services for Phase 2 work, including serving as the Owners’ Advisor to the Water Authority and City and analyzing and recommending a business model(s) for the San Vicente Pumped Storage Study.

- Require staff to periodically update the Hydropower Subcommittee and Engineering and Operations Committee and arrange workshops as necessary regarding the status of the Phase 2 work, including the range of business models being analyzed, and before the preferred business model(s) is presented to the Board for consideration.
Twin Oaks Valley WTP Expanded Service Area

SAN DIEGO COUNTY WATER AUTHORITY
MEMBER AGENCY MAP WITH DISTRICT BOUNDARIES AND CURRENT AQUEDUCT SYSTEM

Twin Oaks Valley Water Treatment Plant

Valley Center Pump Station

Twin Oaks Valley Water Treatment Plant
Current Valley Center Pump Station Operations

Avg. Peak Demand = 80 cfs

- Second Aqueduct Pipelines 3, 4, 5
- First Aqueduct Pipelines 1, 2
- Twin Oaks Valley Water Treatment Plant

RIVERSIDE COUNTY
SAN DIEGO COUNTY

NORTH COUNTY DISTRIBUTION PIPELINE
VALLEY CENTER PIPELINE

60 cfs
20 cfs
Avg. Peak Demand = 80 cfs
Expanded Valley Center Pump Station Operations

- Second Aqueduct Pipelines 3, 4, 5
- First Aqueduct Pipelines 1, 2

- Avg. Peak Demand = 80 cfs
- 60 cfs
- 39 cfs
- 20 cfs
- 41 cfs

Twin Oaks Valley Water Treatment Plant
# Change Order Summary

<table>
<thead>
<tr>
<th>Change Orders for Acceptance</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Credit</td>
<td>($9,500)</td>
</tr>
<tr>
<td>Design Modifications</td>
<td>$282,599</td>
</tr>
<tr>
<td>Differing Site Condition</td>
<td>$42,046</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$315,145</strong></td>
</tr>
</tbody>
</table>
Design Modification – Pump Inlet Piping and Valve Modifications
Differing Site Condition – Relocate Hauck Mesa Valve Vault
Request Authorization Approval

HVAC Modifications $93,392
Construction Contract Summary

- Original Contract: $3,682,000
- Change Orders: $408,537
- Proposed New Contract Amount: $4,090,537
Accept Change Orders 1 through 3 for $315,145; and authorize the General Manager to execute a change order for $93,392 for HVAC modifications, increasing the authorized contract amount from $3,997,145 to $4,090,537.
Summary of Series 2015A Refunding Transaction

Administrative and Finance Committee
September 24, 2015
David Shank, Financial Planning Manager
Market Volatility – 9/9/2015

Dow Jones Industrial Average (DJIA)

10-Year Treasury
# Negotiated Sale Calendar Week of 9/7

<table>
<thead>
<tr>
<th>Sale Week</th>
<th>Description</th>
<th>ST</th>
<th>Amount ($MM)</th>
<th>Senior Manager</th>
<th>Ratings (Moody's/S&amp;P/Fitch)</th>
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</thead>
<tbody>
<tr>
<td>7-Sep</td>
<td>San Diego County Water Authority</td>
<td>CA</td>
<td>153.86</td>
<td>Bank of America Merrill Lynch</td>
<td>Aa2/AA+/AA+</td>
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<tr>
<td>7-Sep</td>
<td>Riverside County Public Financing Authority</td>
<td>CA</td>
<td>52.740</td>
<td>Citigroup Global Markets Inc.</td>
<td>NA/A/NA</td>
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<tr>
<td>7-Sep</td>
<td>Sacramento City Redevelopment Agency</td>
<td>CA</td>
<td>65.000</td>
<td>Stifel Nicolaus &amp; Co. Inc.</td>
<td>NA/NA/NA</td>
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<tr>
<td>7-Sep</td>
<td>Fresno Unified School District</td>
<td>CA</td>
<td>51.710</td>
<td>Piper Jaffray &amp; Co.</td>
<td>Aa3/NA/NA</td>
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<tr>
<td>7-Sep</td>
<td>Oklahoma University Board of Regents</td>
<td>TX</td>
<td>198.120</td>
<td>RBC Capital Markets</td>
<td>Aa3/NA/NA</td>
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<tr>
<td>7-Sep</td>
<td>Philadelphia</td>
<td>PA</td>
<td>187.240</td>
<td>Citigroup Global Markets Inc.</td>
<td>A2/NA/NA</td>
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<tr>
<td>7-Sep</td>
<td>Hawaii University Board of Regents</td>
<td>HI</td>
<td>80.955</td>
<td>Bank of America Merrill Lynch</td>
<td>Aa2/NA/NA</td>
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<tr>
<td>7-Sep</td>
<td>Oregon Facilities Authority</td>
<td>OR</td>
<td>71.070</td>
<td>Bank of America Merrill Lynch</td>
<td>Aa3/NA/?A</td>
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<tr>
<td>7-Sep</td>
<td>Austin Certificates of Obligation</td>
<td>TX</td>
<td>61.340</td>
<td>Jefferies LLC</td>
<td>Aaa/NA/AAA</td>
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<tr>
<td>7-Sep</td>
<td>Austin</td>
<td>TX</td>
<td>231.600</td>
<td>Jefferies LLC</td>
<td>Aaa/NA/AAA</td>
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<tr>
<td>7-Sep</td>
<td>Emerald Coast Utilities Authority</td>
<td>FL</td>
<td>51.815</td>
<td>Raymond James &amp; Associates</td>
<td>NA/NA/NA</td>
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<td>7-Sep</td>
<td>Hawaii University Board of Regents</td>
<td>HI</td>
<td>80.955</td>
<td>Bank of America Merrill Lynch</td>
<td>NA/NA/NA</td>
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<td>7-Sep</td>
<td>North Texas Tollway Authority</td>
<td>TX</td>
<td>750.000</td>
<td>Barclays Capital Inc.</td>
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<td>7-Sep</td>
<td>Tri-County Metropolitan Transportation Auth.</td>
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<td>68.965</td>
<td>JP Morgan Securities LLC</td>
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<td>Tri-County Metropolitan Transportation Auth.</td>
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<td>64.630</td>
<td>JP Morgan Securities LLC</td>
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<td>7-Sep</td>
<td>Illinois Finance Authority</td>
<td>IL</td>
<td>100.000</td>
<td>JP Morgan Securities LLC</td>
<td>Aa2/NA/AA</td>
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<tr>
<td>7-Sep</td>
<td>Lancaster County Hospital Authority</td>
<td>PA</td>
<td>50.910</td>
<td>BB&amp;T Capital Markets</td>
<td>NA/NA/BBB-</td>
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<tr>
<td>Day-to-Day</td>
<td>Lee Memorial Health System</td>
<td>FL</td>
<td>277.065</td>
<td>Bank of America Merrill Lynch</td>
<td>A2/NA/NA</td>
</tr>
<tr>
<td>Day-to-Day</td>
<td>Puerto Rico Sewer Authority</td>
<td>PR</td>
<td>750.000</td>
<td>Bank of America Merrill Lynch</td>
<td>Caa3/CCC-/CC</td>
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</tbody>
</table>

**Deals > $50mm**

---

![Par Value of CA Tax Exempt Negotiated Sales](image)
# Post Pricing Transaction Summary

## Summary of Orders and Allotments

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Orders</th>
<th>Allotments</th>
</tr>
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<tbody>
<tr>
<td>2019</td>
<td>$49,280,000</td>
<td>$6,950,000</td>
</tr>
<tr>
<td>2020</td>
<td>83,225,000</td>
<td>7,695,000</td>
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<tr>
<td>2021 (2%)</td>
<td>10,970,000</td>
<td>3,000,000</td>
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<tr>
<td>2021 (5%)</td>
<td>125,305,000</td>
<td>12,505,000</td>
</tr>
<tr>
<td>2022 (3%)</td>
<td>15,740,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td>2022 (5%)</td>
<td>143,295,000</td>
<td>12,190,000</td>
</tr>
<tr>
<td>2023 (2.5%)</td>
<td>16,690,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td>2023 (5%)</td>
<td>152,675,000</td>
<td>19,655,000</td>
</tr>
<tr>
<td>2024 (3%)</td>
<td>4,665,000</td>
<td>3,000,000</td>
</tr>
<tr>
<td>2024 (5%)</td>
<td>107,810,000</td>
<td>21,735,000</td>
</tr>
<tr>
<td>2025</td>
<td>107,935,000</td>
<td>24,175,000</td>
</tr>
<tr>
<td>2026</td>
<td>50,285,000</td>
<td>11,340,000</td>
</tr>
<tr>
<td>2027</td>
<td>44,110,000</td>
<td>11,910,000</td>
</tr>
<tr>
<td>2028</td>
<td>73,380,000</td>
<td>20,800,000</td>
</tr>
<tr>
<td>2029</td>
<td>39,840,000</td>
<td>21,840,000</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$1,023,205,000</strong></td>
<td><strong>$184,795,000</strong></td>
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**Subscription by Maturity**

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<tr>
<th>Maturity</th>
<th>2019</th>
<th>2020</th>
<th>2021 (2%)</th>
<th>2021 (5%)</th>
<th>2022 (3%)</th>
<th>2022 (5%)</th>
<th>2023 (2.5%)</th>
<th>2023 (5%)</th>
<th>2024 (3%)</th>
<th>2024 (5%)</th>
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</table>

Due to significant investor demand, the Water Authority was able to lower yields for the final pricing.

**Result:** Approximately $676,000 in additional savings

---

(1) Changes in pricing represent preliminary pricing levels vs. final pricing levels, while change in MMD reflects changes from September 8th and 9th MMD. The 2029 maturity was not on the preliminary pricing wire but later added to the final pricing given the subscription levels.
The Water Authority received $19.47 million of retail orders.
## Post Pricing Transaction Summary

**Summary of Financing Results – Series 2015**

### Sources & Uses

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<th>Sources</th>
<th>Amount</th>
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<td>Par Amount</td>
<td>$184,795,000.00</td>
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<tr>
<td>Original Issue Premium</td>
<td>33,756,117.10</td>
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<td>Accrued Interest</td>
<td>3,258,641.67</td>
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<td><strong>Total</strong></td>
<td><strong>$221,809,758.77</strong></td>
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<th>Uses</th>
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<tr>
<td>Refunding Escrow Deposit</td>
<td>$221,106,216.00</td>
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<td>Cost of Issuance</td>
<td>510,906.00</td>
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<tr>
<td>Underwriters' Discount</td>
<td>191,569.03</td>
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<td>Additional Proceeds</td>
<td>1,067.74</td>
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<td><strong>Total</strong></td>
<td><strong>$221,809,758.77</strong></td>
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### Summary Statistics

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<tr>
<td>Arbitrage Yield</td>
<td>2.366321%</td>
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<tr>
<td>True Interest Cost</td>
<td>2.599947%</td>
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<td>All-in TIC</td>
<td>2.630857%</td>
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<tr>
<td>Average Coupon</td>
<td>4.863888%</td>
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<td>Average Life (years)</td>
<td>9.187</td>
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<td>Duration (years)</td>
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<td>Total Interest</td>
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<td>Total Debt Service</td>
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<td>Maximum Annual Debt Service</td>
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<tr>
<td>Average Annual Debt Service</td>
<td>$19,647,398.50</td>
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<tr>
<td>$ Net PV Savings</td>
<td>$15,089,313.63</td>
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<tr>
<td>% Net PV Savings (Refunded Bonds)</td>
<td>7.745259%</td>
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### Annual Cashflow Savings

*Average annual savings of $1.3M or $2.60/AF*
Drought Response Outreach Update

Legislation, Conservation and Outreach Committee
September 24, 2015

Jason Foster, Director
Denise Vedder, Public Affairs Senior Manager
Public Outreach and Conservation
Summer Campaign Results

- >117,000 drought portal page views
- WaterSmartSD.org visits up 102%
- Facebook likes up 245%
- eGuide visitors up 42%
Campaign Rampdown – TV/Radio

- Ads ended last week
  - Exceptions:
    - Radio for Padres (Oct. 4) and Chargers (Sept. 28)
    - Univision radio (Oct. 12)
  - Cancelled radio traffic tags for October
- Two weeks radio/TV on hold for 2016
Campaign Rampdown – Digital/Outdoor

- “Flattening” digital schedule
  - Reducing frequency (see less often)
  - 12 weeks instead of seven
- Adjusting placements to reflect savings levels
- Outdoor ended Sept. 1
New Campaign Creative

• Keep messaging fresh
  • Take into account people’s actions to save
  • Softer, gentler message

• Consistent with focus group findings
  • Positive reinforcement
  • “Authentic” people they can relate to
  • Encourage sharing water-saving stories

• Uses: Digital and online
Samples of New Campaign Creative

I use a broom to clean driveways & sidewalks
Michael – Tierrasanta Resident

We fix leaks immediately indoors & out
See more water-saving stories whenindrought.org
Teresa – Chula Vista Resident

Our WaterSmart landscape uses 50% less water
Judy – Poway Resident
When in Drought App

- 1,100+ downloads
- 270+ water-waste reports
  - Excessive runoff
  - Leaks/broken equipment
  - Watering wrong day

Report Waste
School Outreach

- San Diego Unified School District
  - Signs at 100+ schools
- Grossmont Union High School District
  - 100 signs
- School assembly program
  - Reports in Union-Tribune, Channel 10
Fall 2015 plant fairs with The Home Depot start 9/26
   - Seven fairs; 11 member agencies partnering

Landscape professional training
   - Oct. 20 – Escondido
   - Oct. 21 – Chula Vista

Design for Homeowners classes launch 9/30
   - Seven classes through December

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Conservation Programs

Fall 2015 Plant Fairs will take place from 8 am to noon at these Home Depot locations:

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<tr>
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<th>Location</th>
<th>Address</th>
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<tr>
<td>September 26</td>
<td>Encinitas</td>
<td>1001 N El Camino Real</td>
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<td>October 3</td>
<td>San Diego</td>
<td>4255 Genesee Ave</td>
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<td></td>
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<td>12185 Carmel Mtn Rd</td>
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<td>October 10</td>
<td>El Cajon</td>
<td>298 Fletcher Pkwy</td>
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<td>Oceanside</td>
<td>3838 W Vista Way</td>
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<td>October 17</td>
<td>San Diego</td>
<td>3555 Sports Arena Blvd</td>
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<td>October 24</td>
<td>Chula Vista</td>
<td>725 Plaza Ct</td>
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Sacramento Update

Legislation, Conservation, and Outreach Committee
September 24, 2015

Glenn Farrel, Government Relations Manager
Steve Cruz, Gonzalez, Quintana, Hunter & Cruz
Legislature concluded its regular 2015 legislative session on September 11.

Governor will have until October 11 to take final action on legislation passed by the Legislature after August 31.

Extraordinary sessions on health and transportation remain open, but no near-term activity planned.

Reconvenes from Interim Recess on January 4, 2016 for the second year of the Legislature’s two-year legislative session.
Highlights from 2015 Legislative Session

- Significant legislative activity in the following areas:
  - Drought
  - Water Finance
  - Energy
  - Health
  - Transportation
Highlights from 2015 Legislative Session

Drought
- Tax incentives: Sales tax exemption for energy/water efficient appliances; income tax credits
- Artificial turf – HOAs and city/county ordinances
- Water conservation/recycling on state properties
- 11 different Budget Trailer Bills related to drought

Water Finance
- SB 20 (Pavley) – Placeholder for a public goods charge/water tax?
- SB 789 (Wieckowski) – Excise tax on water
Highlights from 2015 Legislative Session

- **Energy**
  - SB 350 (De Leon) – Increase renewable energy procurement to 50% and double energy efficiency by 2030
  - SB 32 (Pavley) – Reduced greenhouse gas emission limits
  - SB 286 (Hertzberg) – Direct access
Highlights from 2015 Legislative Session

- Health
  - Medical marijuana
  - Mandatory vaccines
  - Assisted suicide
  - Tobacco – E-cigarettes

- Transportation
  - Financing/gas tax
Legislative Leadership Changes

- **Assembly Speaker** – Official vote on January 4, 2016 – Succession timeframe uncertain

- **Assembly Minority Leader** – Transition on January 4, 2016

- **Senate Minority Leader** – Transition occurred August 27
Water Authority Sponsored Bills

- AB 149 – Assemblymember Rocky Chavez

- Signed into law on July 6 (Chapter 49, Statutes of 2015)

- Changes the 2020 UWMP approval date from December 31, 2020 to July 1, 2021
Water Authority Sponsored Bills

- SB 208 – Senator Ricardo Lara
  - Advance payment of up to 50% of IRWM grant award
    - NGO or disadvantaged community
    - or project benefits a disadvantaged community
    - Grant award is less than $1 million
  - Currently pending action on Governor’s desk
Water Authority Sponsored Bills

- AB 349 – Assemblymember Lorena Gonzalez
- Allows homeowners within common interest developments to install synthetic grass
- Retention of design and aesthetic standards with HOA
- Signed into law on September 4 (Chapter 266, Statutes of 2015)
- Urgency statute – takes effect immediately
AB 33 (Quirk)
- Require PUC to evaluate large-scale energy storage within the state’s overall strategy for procuring a diverse portfolio of resources

Objective: Create a path forward to generate value for utilities to procure large energy storage

California ISO has identified large energy storage as a potential cornerstone of the electricity network

Status: Two-year bill – pending action in Senate Rules Committee
Major Issues Already on the 2016 State Legislative Session Horizon

- SB 20 (Pavley) – Public goods charge/water tax
- SB 163 (Hertzberg) – Elimination of ocean discharge
- AB 33 (Quirk) – Large-scale energy storage
- Tiered water rates/Proposition 218 relief
- 47 Assemblymembers have asked Governor for a special legislative session on the drought
Water Authority is soliciting legislative proposals for possible sponsorship of legislation in 2016

Staff will undertake an evaluation, analysis, and review process and present legislative proposals to the Board on December 10

Staff is requesting suggestions from Board members by **October 9**
- E-mail suggestions to Glenn Farrel at gfarrel@sdcwa.org